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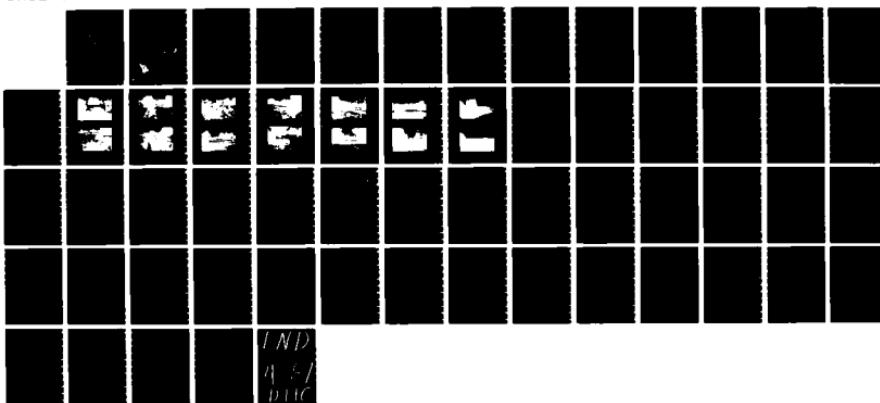
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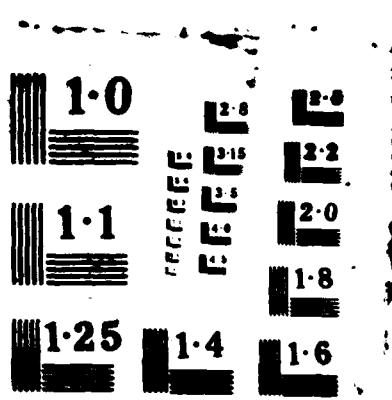
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PHASE I CULTURAL RESOURCES INVESTIGATION:
BOSCOBEL FLOOD CONTROL PROJECT
ALONG SANDERS CREEK,
GRANT COUNTY, WISCONSIN
(FINAL REPORT)

By

Robert P. Fay

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January 19, 1987

OLD NORTHWEST RESEARCH
MADISON, WISCONSIN

REPORT NUMBER 19

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19 ABSTRACT (Continue on reverse if necessary and identify by block number) The purpose of the survey was to locate, identify and evaluate any evidence of prehistoric or historic materials, or features that might be within an area from Bluff Street to Prairie Street, along Sanders Creek in Boscobel, Wisconsin. The Corps plans channel modification and the placement of excavated material from bank regrading for flood control purposes. The investigation included surface inspection, shovel testing, soil coring, cut bank profiles, informant interviews, and archival research. No evidence of prehistoric occupation or utilization; or structural remains associated with the early industrial development of Boscobel, or modern historic period was found. Because of these findings, the proposed Boscobel flood control project will have no significant adverse effects on any cultural resources.			
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PHASE I CULTURAL RESOURCES INVESTIGATION:
BOSCOBEL FLOOD CONTROL PROJECT
ALONG SANDERS CREEK,
GRANT COUNTY, WISCONSIN
(FINAL REPORT)

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In Compliance With: Contract Number DACW37-86-M-1557

Old Northwest Research
Report Number 19

January 19, 1987

MANAGEMENT SUMMARY

A Phase I cultural resources investigation of a proposed U. S. Army Corps of Engineers, St. Paul District, flood control project along Sanders Creek in Boscobel, Wisconsin was conducted by Old Northwest Research in September 1986.

The purpose of the survey was to locate, identify, and evaluate any evidence of prehistoric and historic materials or features that might be within an area from Bluff Street to Prairie Street where the Corps plans channel modification and the placement of excavated material from bank regrading.

The investigation included surface inspection, shovel testing, soil coring, cut bank profiles, informant interviews, and archival research.

The Old Northwest Research Phase I survey found: (1) no evidence of prehistoric occupation or utilization within the project area; (2) no structural remains associated with the early industrial development of Boscobel; (3) a large amount of sedimentation along Sanders Creek resulting from previous floods and soil erosion; (4) heavily disturbed soils in the project area from the channelization of Sanders Creek and the construction of levees, roads, bridges, and storm sewers; (5) historic materials from the modern period; and (6) a stone barn foundation of an unknown date outside of the project area.

Because of these findings, the proposed Boscobel flood control project will have no significant adverse effects on any cultural resources.

This cultural resources investigation and report (Contract No. DACW37-86-M-1557) partially fulfills the obligations of the U. S. Army Corps of Engineers, St. Paul District, regarding the management and protection of cultural resources mandated by Federal legislation.

The budget for the work detailed in this report was under \$2,700.00. The field notes, maps, photographs, and other documentation resulting from this cultural resources investigation are on file at Old Northwest Research in Madison, Wisconsin.

A. C. W. Mar

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INTRODUCTION

This report summarizes a Phase I cultural resources investigation of a proposed U. S. Army Corps of Engineers, St. Paul District, flood control project along Sanders Creek in the city of Boscobel, Grant County, Wisconsin (Figure 1).

The purpose of the investigation was to locate, identify, and evaluate any evidence of prehistoric and historic archeological sites in an area to be affected by the proposed flood control project. Of primary concern was the project's potential impact on the site of a mound group (47GT5) reported east of the Boscobel railroad depot in the vicinity of LeGrand and Superior Streets near the west boundary of the project area.

The Phase I cultural resources survey was required for compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (Public Law 89-665); the National Environmental Policy Act of 1969 (Public Law 91-190); Executive Order 11593 for the Protection and Enhancement of the Cultural Environment (May 13, 1971); the Archeological and Historical Preservation Act of 1974 (Public Law 93-291); the Advisory Council on Historic Preservation Regulations for the Protection of Historic and Cultural Properties (36 CFR Part 800); and Corps regulations on cultural resources.

The Phase I contract (DACW-37-86-M-1557) was sent out for bid quotation on August 7, 1986 and awarded to Old Northwest Research on August 29, 1986. The field work was conducted by the author over 5 days on September 9, 12, 13, 18, and 24, 1986.

A copy of the Wisconsin State Historic Preservation Officer's compliance review letter of June 25, 1986, to the St. Paul District, Corps of Engineers (Appendix A), the scope of work for the cultural resources survey (Appendix B), and the author's resume (Appendix C) are presented at the end of the report.

PROJECT LOCATION AND DESCRIPTION

The proposed flood control project location is along Sanders Creek in the eastern section of the city of Boscobel in the SW 1/4 of Section 26, Township 8 North, Range 3 West (Figure 2). The project will consist of channel modification and some bridge work along the creek from Bluff Street to Prairie Street (U. S. Army Corps of Engineers 1986). The bottom width of the excavated channel will be about 50 feet wide with one vertical on three horizontal side slopes. Material excavated during bank regrading will be placed immediately adjacent to the excavated channel and behind existing levees in Boy Scout Park and a vacant residential lot north of Kansas Street on the west side of Sanders Creek. Any remaining dredged material will be placed in an existing quarry pit one mile south of the city. The levees between Bluff Street and Prairie Street will remain as they are.

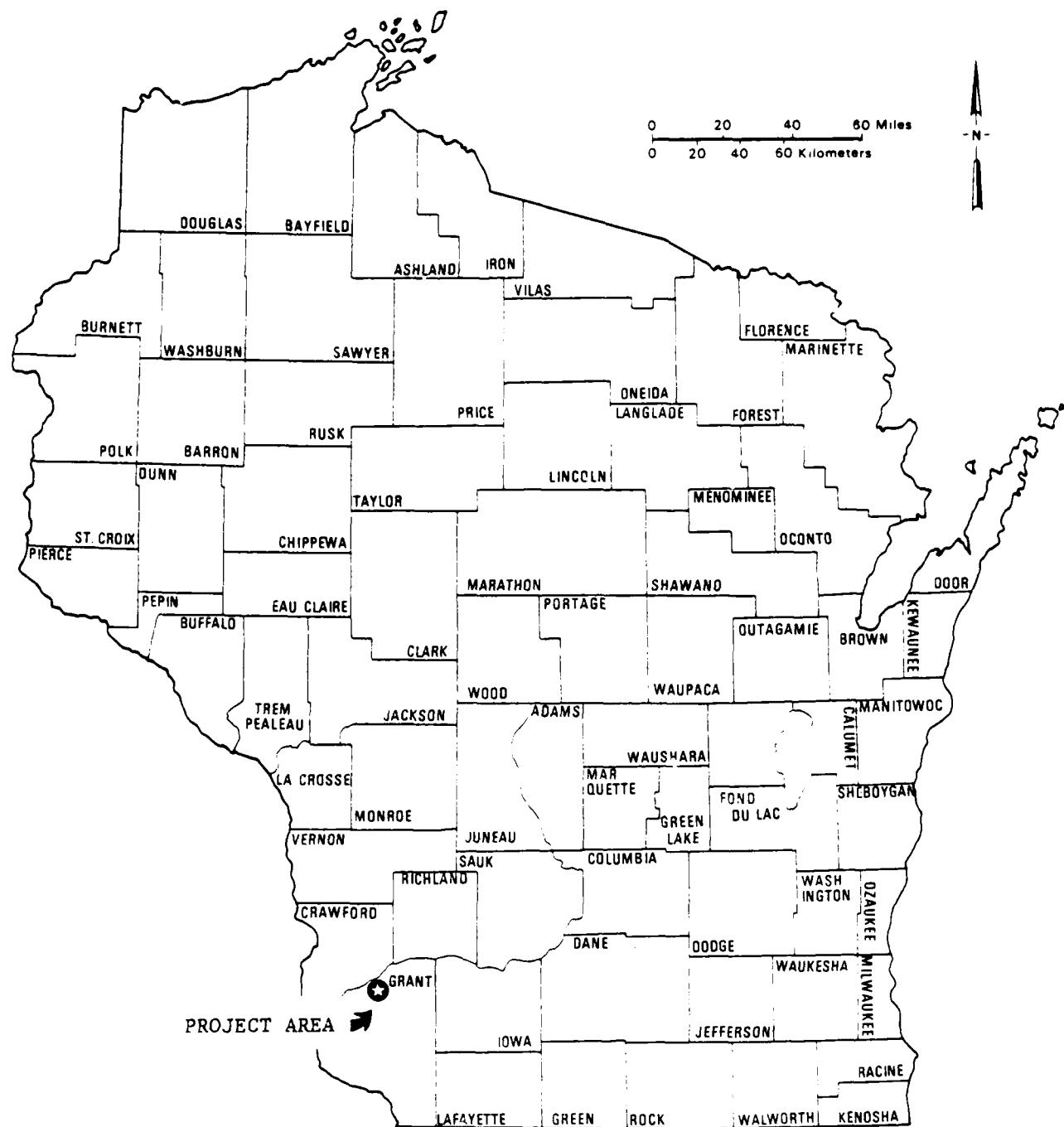
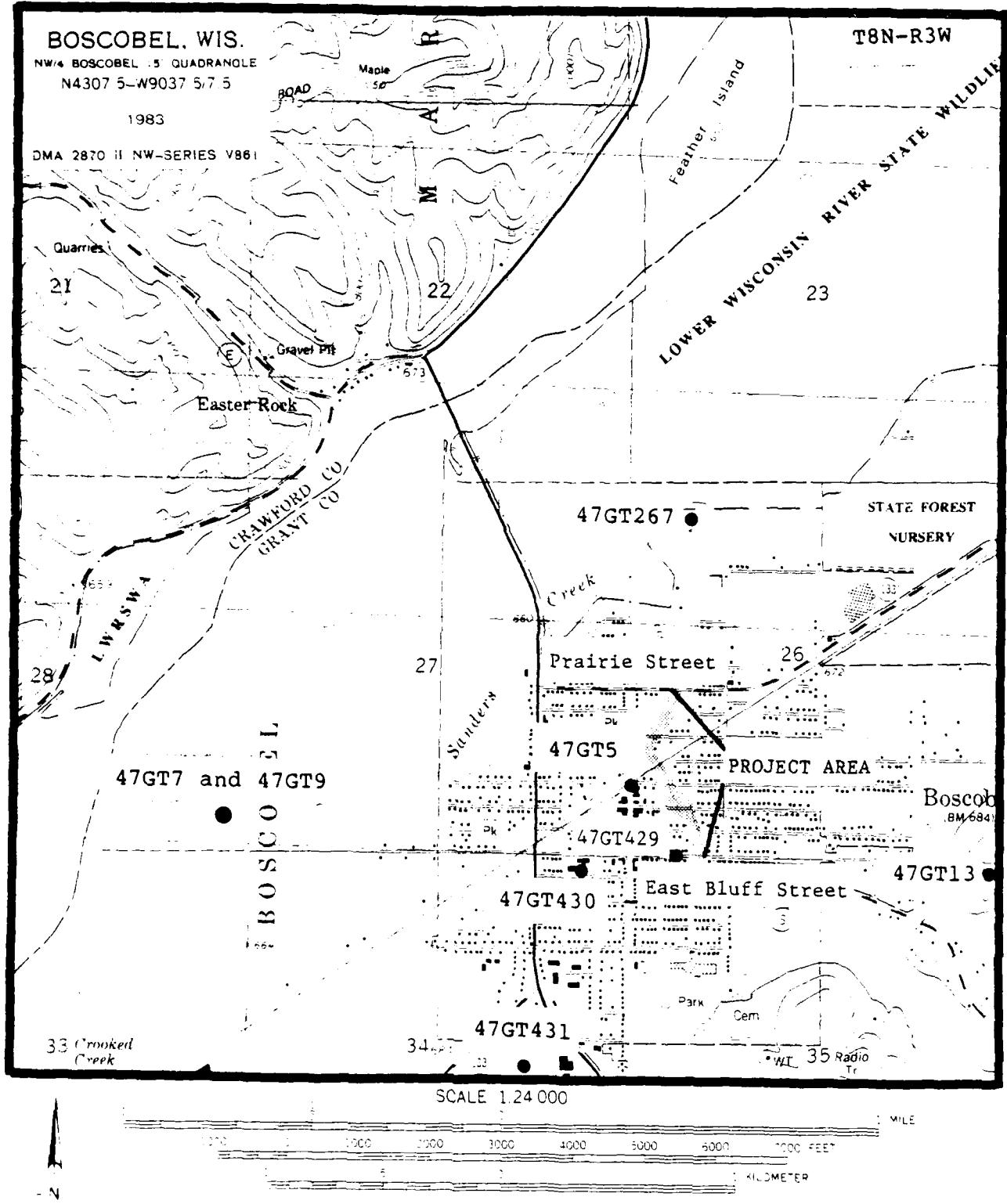


Figure 1. Project Location in Wisconsin.



● prehistoric sites

Figure 2. Boscobel 7.5 Minute U. S. G. S. Map Showing the Location of the Project Area.

Seven bridges cross Sanders Creek in the project area. From south to north, they include a crudely constructed stone-arch bridge at Bluff Street, a steel and concrete footbridge at Oak Street, a steel and concrete bridge at LaBelle Street, a wood footbridge at Superior Street, a wood railroad trestle bridge between Superior and LeGrand Streets, and steel and concrete bridges at Kansas and Prairie Streets. A plaque on the last bridge (B-22-3) indicates it was constructed in 1948.

Bridge modifications will involve realigning the piers of the railroad bridge and replacing the Kansas Street bridge that currently restrict the flow of water and back up floodwaters within the city. Riprap will be placed for erosion protection purposes at the bridges.

Damaging floods have occurred within the corporate limits of Boscobel in June 1944, June 1947, July 1950, and July 1951. During the 1944 flood, newspaper accounts record that Sanders Creek overflowed its banks and flooded several houses, churches, businesses, and parks (The Boscobel Dial, June 22, 1944). The 1947 flood inundated homes in 12 square blocks and caused damage estimated at \$100,000 (The Boscobel Dial, June 19, 1947). The 1950 flood on Sanders Creek, the largest recorded flood, was caused by a 7-inch rainfall centered over the city. This flash flood inundated more than 20 city blocks and washed out or wrecked several bridges (The Boscobel Dial, July 20, 1950).

Following the 1950 flood, bridges at Oak and Superior Streets were removed and earthen dikes were built in low areas along Crooked Creek about one mile south of the city and along both banks of Sanders Creek from Bluff Street to below Prairie Street. The low levees are well landscaped, and in some areas, they are not easily distinguished from the surrounding terrain because of fill placed behind them.

In 1948, Sanders Creek between Bluff and Prairie Streets within the project area was channelized and widened by the city at a cost of \$5,000 in an attempt to reduce flood damage (The Boscobel Dial, March 16, 1950). The creek was originally west of its present course where Valley Street is now located (Figure 3). The creek flowed north of the railroad tracks, then looped across Wisconsin Avenue near Kansas Street (where Quent's Liquor-Bait-Sportshop at 101 West LeGrand Street and the Boscobel Area Public Schools bus lot and maintenance garage in the 600 block of Wisconsin Avenue are now) before heading east about two blocks toward Park Street, then north to Prairie Street. The location of Sanders Creek prior to channelization is shown on various plat and topographic maps of Boscobel dating from the 1860's to 1930's (Gray 1868; Ruger and Stoner 1869; Warner and Foote 1877; Snyder, Van Vechten and Company 1878; Foote 1895; Sanborn Map Company 1884, 1892, 1899, 1904, 1912, 1927; Ogle 1918; Brock and Company 1929; United States Geological Survey 1933).

Since the creek was channelized and the levees were built, flash floods such as one in 1964 have caused crop damage and heavy erosion and have destroyed some fences, but not caused any flooding of homes or downtown businesses (The Boscobel Dial, July 30, 1964). The channel has accumulated up to at least 3 feet of sedimentation in areas downstream of Prairie Street and under bridges within the project area, particularly the Kansas Street and the railroad bridges.

A site plan of the flood control project area at Boscobel (Figure 3) and views of the project area (Figures 4-17) are presented below for reference purposes.

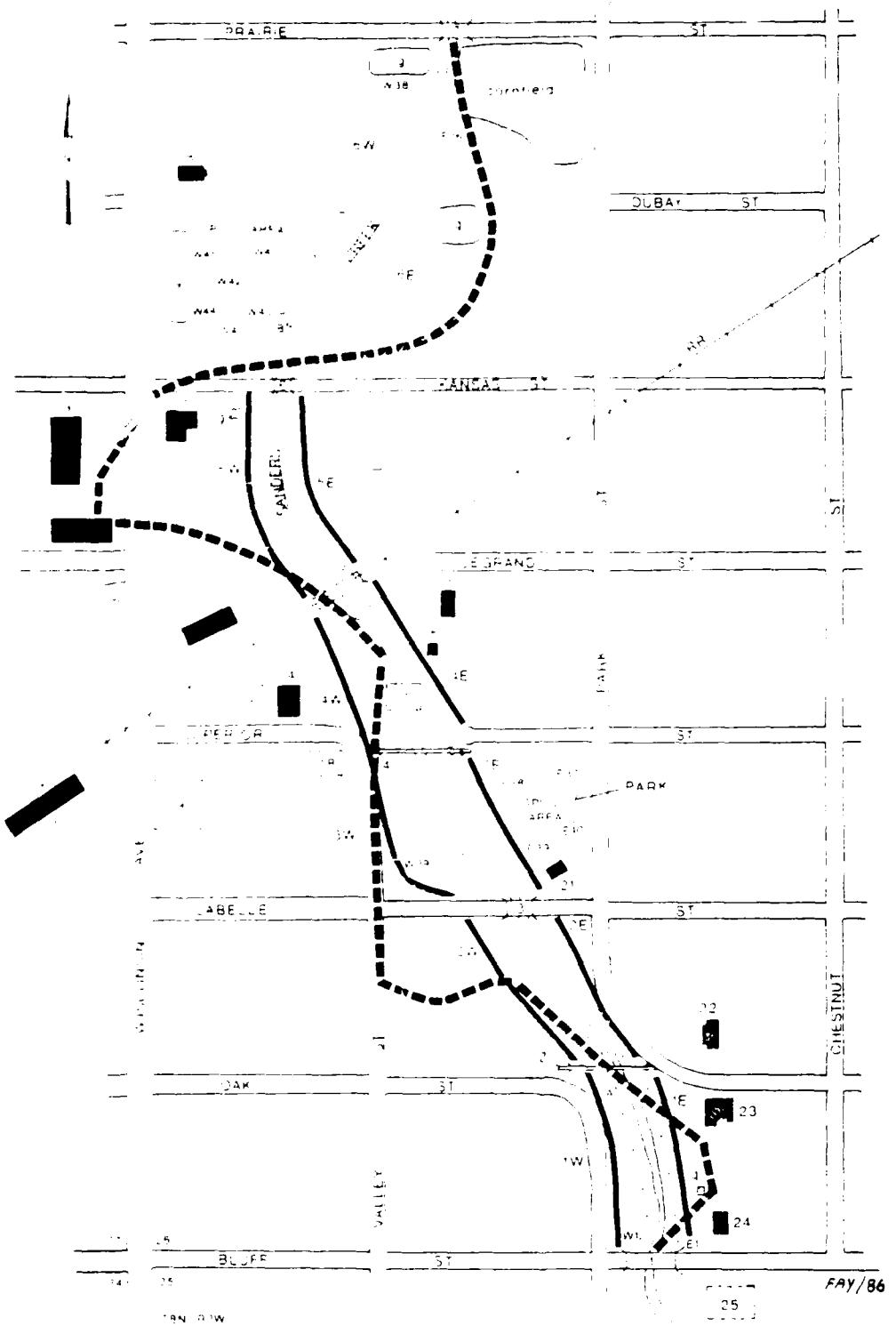
PHYSICAL SETTING

The project area lies within the "Driftless Area" of the Western Upland physiographic region of Wisconsin (Martin 1965). This portion of the State is unique in that it escaped being overridden by glacier ice sheets that covered the surrounding area some 12,000 years ago. As a result, the Driftless Area of southwestern Wisconsin did not experience the massive leveling effects of continental glaciers seen elsewhere in the State and from Canada to Kansas. The region is characterized by steep wooded ridges and narrow fertile valleys.

The project area is along Sanders Creek, a spring-fed stream that flows northwest through Boscobel and an extensive marsh area in the floodplain before entering the Wisconsin River about a mile west of the city (Smith and Ball 1971:37). The area adjacent to the creek within the project area is a sandy terrace formed by glacial meltwater and the erosion of outwash sand and gravel within the broad floor of the lower Wisconsin River Valley. The valley is a deep-sided gorge or trench cut in Cambrian sandstone with some dolomite and shale (Wisconsin Geological and Natural History Survey 1981). The bluffs bordering the terraces and floodplain at Boscobel rise 300 to 400 feet above the valley floor. Outcrops showing the various strata of bedrock are common along the bluffs that border the lower Wisconsin River.

Soils found on the terrace along Sanders Creek within the project area at Boscobel consist of Bertrand and Arenzville silt loam and Sparta loamy fine sand (Robinson and Klingelhoets 1961). The Bertrand and Sparta series formed under prairie and timber in sandy deposits that were laid down by water (glacial origin), while the Arenzville series formed in silty material washed down from the loess-covered uplands (alluvial origin). All of the soils are moderately to well drained.

The pre-settlement vegetation of the project area, like most of the river and stream terraces in this portion of the Driftless Area along the lower Wisconsin River, was prairie and oak savannah, thinly timbered with white and black oak, hickory, ash, elm, and maple (United States General Land Office Surveyor's



Levee
Location of Sanders Creek Prior to Channelization
Structure
Former Structure
Shovel Test
Garden
Cut Bank Profile 'A-C'

0 200
feet

Figure 3. Site Plan of the Project Area.

Legend for Figure 3 - Site Plan of the Project Area

1. Bluff Street Stone-Arch Bridge
2. Oak Street Footbridge
3. LaBelle Street Bridge
4. Superior Street Footbridge
5. Railroad Trestle Bridge
6. Kansas Street Bridge
7. Prairie Street Bridge
8. 409 Wisconsin Avenue - Residence
9. Boscobel Area Public Schools Bus Lot and Maintenance Garage - 600 Block of Wisconsin Avenue
10. 101 West LeGrand Street- Quent's Liquor-Bait-Sportshop
11. 609 Wisconsin Avenue - Residence
12. 715 Wisconsin Avenue - Mill
13. R. H. Palmer's Wagon Shop
14. U. S. Post Office
15. 200 East LeGrand Street - Hildebrand Residence
16. Stone Barn Foundation
17. Sanders Creek Tannery and Parker-Hildebrand Company Creamery
18. Carrier House Stables
19. Carrier House
20. Railroad Depot
21. Boy Scout Cabin
22. 305 East Oak Street - Gov. Blaine Residence
23. 306 East Oak Street - Brookside Hospital
24. 307 East Bluff Street - Residence
25. J. R. Muffley's Furniture Factory and Jonn Duncan Woolen Mill



Figure 4. Stone-Arch Bridge over Sanders Creek at Bluff Street, Looking North.



Figure 5. Oak Street Footbridge over Sanders Creek and Flood Area (Survey Unit 1), Looking North from the Bluff Street Bridge.



Figure 6. Oak Street Footbridge over Sanders Creek and Flood Area (Survey Unit 2), Looking South from the LaBelle Street Bridge. (Note: The old Brookside Hospital at 306 East Oak Street is visible at left).



Figure 7. Superior Street Footbridge over Sanders Creek and Flood Area (Survey Unit 3), Looking North from the LaBelle Street Bridge (Note: The United States Post Office and Farmers Exchange Feed Mill are at upper left; Boy Scout Park at right).



Figure 8. LaBelle Street Bridge over Sanders Creek and Flood Area (Survey Unit 3), Looking South (Note: The Boy Scout Cabin is visible at upper left).



Figure 9. Proposed Spoil Area in Boy Scout Park, Looking Northwest from Park and LaBelle Streets (Note: The Boy Scout Cabin is at left).



Figure 10. Railroad Trestle Bridge over Sanders Creek and Flood Area (Survey Unit 4), Looking North from the Superior Street Footbridge.



Figure 11. Flood Area North of the Railroad Trestle Bridge over Sanders Creek (Survey Unit 5), Looking South from the Kansas Street Bridge (Note: Levee behind residences on the 600 block of Wisconsin Avenue at right).

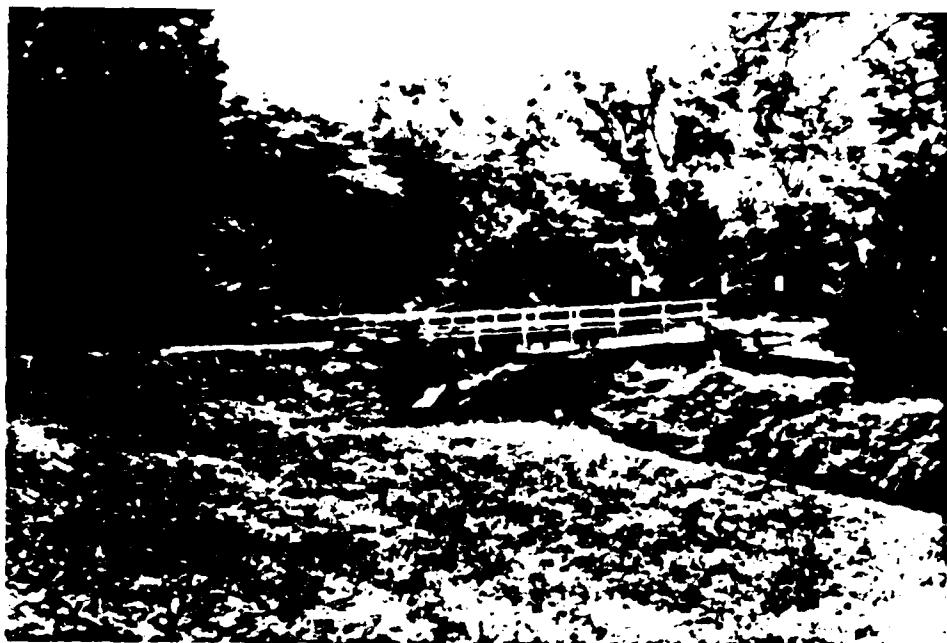


Figure 12. Kansas Street Bridge over Sanders Creek and Flood Area (Survey Unit 5), Looking Northeast.



Figure 13. Proposed Spoil Area and Filled Area along Sanders Creek North of Kansas Street. Survey Unit 5W, Looking South.



Figure 14. Proposed Spoil Area and Flood Area along Sanders Creek North of Kansas Street (Survey Unit 6W), Looking Southwest Toward Wisconsin Avenue.



Figure 15. Flood Area along Sanders Creek from Kansas to Prairie Streets (Survey Unit 6E), Looking North.



Figure 16. Cornfield and Flood Area along Sanders Creek South of Prairie Street (Survey Unit 6E), Looking Northwest from Park Street.



Figure 17. Prairie Street Bridge over Sanders Creek and Flood Area Survey Unit 6, Looking North.

Field Notes 1833, 1840; Curtis 1959; Wisconsin Geological and Natural History Survey 1965).

The area along Sanders Creek today is covered primarily with grasses and weeds and a few small trees. The downstream end of the project area from Kansas Street to Prairie Street and along the east side of the creek between Superior Street and the railroad bridge is sparsely wooded with cottonwood, willow, boxelder, maple, and other deciduous trees. Several small gardens are in the backyards of houses behind existing levees north of East Bluff Street and from Kansas to Prairie Streets on the east side of the creek, and between Kansas and Prairie Streets on the west side of the creek. A large cornfield is south of Prairie Street in the bottomland between the creek and Park Street.

ARCHEOLOGICAL AND HISTORICAL CONTEXT

The lower Wisconsin River Valley has long been the focus of human activity. Numerous surface finds, burial mounds, habitations, and workshops are reported in the region. Information on reported archeological sites in the area is recorded in various site inventory files and archeological survey reports housed at the State Historical Society of Wisconsin and in issues of The Wisconsin Archeologist (Brown 1906, 1908, 1909, 1912, 1925a, 1925b).

A review of State inventory files and records showed no recorded archeological sites within the project area. Four prehistoric sites are recorded within the corporate limits of Boscobel, however (Figure 2). The Boscobel Depot Mounds (47GT5) were a few rods east of the old Chicago, Milwaukee, St. Paul and Pacific railroad depot (now vacant) on both sides of the tracks in the SW 1/4 of Section 26, Township 8 North, Range 3 West (Thomas 1891:233; Brown 1906:326). The mounds were about one block west of the project area. The exact number of mounds in this group is unknown.

In 1903, W. W. Gilman of Boscobel reported that some of the mounds in this group could be seen in the yard of Dr. L. G. Armstrong and the adjoining yard of Mr. Hiram W. Favor, but had never been explored. The Armstrong and Favor residences were presumably located on Superior Street. Dr. Armstrong, a surgeon in the Union Army during the Civil War, came to Boscobel in 1866 and practiced until his death and retirement (Western Historical Company 1881:927; Boscobel Centennial History Committee 1973). Favor settled in Boscobel in 1863, and in 1870 he became a partner in the firm of Sawyer and Favor, druggists and dealers in fancy groceries, crockery, paints, oils, books, and stationery (Western Historical Company 1881:929-930). No evidence of the mounds was found by the author in 1986 on the depot grounds, along the railroad tracks between Wisconsin Avenue and Sanders Creek, or in any of the lots in the 100 block of Superior Street between Wisconsin Avenue and Valley Street. The mounds appear to

have been destroyed by railroad construction, and by commercial and residential development.

According to early land surveyor's notes, "Ancient embankments" (47GT429) were located 10 to 11 chains east between Sections 26 and 35 of Township 8 North, Range 3 West (United States General Land Office Surveyor's Field Notes 1833, 1840). This notation places them 660 feet to 726 feet east of what is now Wisconsin Avenue in the middle of the 200 block of East Bluff Street between Valley and Park Streets, or about one block west of the upstream end of the project area. The area is now a residential neighborhood. The exact number of mounds in this group is unknown. No evidence of these mounds was found by the author in 1986 in any of the yards on the 200 block of East Bluff Street. The mounds appear to have been destroyed by street construction and residential development.

The Parker Hospital Mounds (47GT430) were about four blocks west of the upstream end of the project area on the grounds of the old Parker Hospital, which was started by Dr. F. S. Tuffley in 1918 after he purchased the Dwight Parker residence. This residence was an impressive two-story Italianate-style house with a French Mansard roof. The house was located on the north side of Parker Street between Church and Mound Streets on Block 2 of Parker's Addition in the NE 1/4 of the NE 1/4 of Section 34, Township 8 North, Range 3 West. The group originally consisted of two linear mounds. The ends of both mounds had already been taken off by street construction at the time the mounds were reported in 1921 by Gov. John J. Blaine and Dr. F. S. Tuffley of Boscobel. The Memorial Hospital and Nursing Home was erected here on this block in 1952, and the old Parker Hospital was razed in 1957 (Boscobel Centennial History Committee 1973). No surface indications of the mounds were found by the author in 1986.

The Boscobel Sand Pit Site, a Middle Woodland campsite (47GT267), was found in 1978 during a compliance survey of the city's new wastewater treatment plant near the edge of a terrace above the lower Wisconsin River floodplain in the NW 1/4 of the NW 1/4 of Section 26, Township 8 North, Range 3 West (Brazeau 1978). The site is about one-half mile north of the downstream end of the project area. Cultural material found eroding out of exposed surfaces of a sand pit west of the sewage treatment plant facility included a chert bifacial knife, a scraper, lithic debris, and Havana Plain pottery. In 1986, the author found four additional chert thinning flakes on the surface between the terrace edge and a large, deep sand pit about 100 feet from the northwest corner of a chain link fence that extends around the sewage treatment plant.

Four known prehistoric sites are reported outside of the corporate limits of Boscobel within about one mile of the project area (Figure 2). The Ruka or Sanders Creek Mound Group (47GT7) and the Sanders Creek Camp and Workshop Site (47GT9) are reported near the junction of Sanders Creek and the Wisconsin River in the

SE 1/4 of Section 28, Township 8 North, Range 3 West, about one and one-half miles west of the project area (Lewis 1891, 1892; Thomas 1891:233; Brown 1906: 326; Miller 1932:63). The group originally contained two bird effigies, three conicals, and six linear mounds. In 1904, some boys dug a skull out of one of the bird effigies (Gilman 1906; West 1907:203). The mounds and campsite were mapped by Charles E. Brown in 1909. The mounds, presumably levelled by cultivation, were not seen during a recent attempt to relocate them (Petersen 1979:123). The site was not visited by the author in 1986.

A small conical mound (47GT13) about 4 feet in diameter and 20 inches high is reported on the crest of Bald Bluff in the NE 1/4 of Section 35, Township 8 North, Range 3 West, about one mile east of the project area. The mounds was excavated in 1858 by Charles K. Dean of Boscobel who reported finding two partially cremated burials within a rectangular rock enclosure about 18 inches long by 12 inches wide capped with a flat rock, but no implements (Dean 1882:75; Thomas 1891:233; Holford 1900:249).

In 1854, Dean, a civil engineer employed by the Milwaukee and Mississippi railroad (later the Chicago, Milwaukee, St. Paul and Pacific) and others purchased land on which the city of Boscobel now stands for a railroad station (Western Historical Company 1881:929; Holford 1900:663-664). In 1856, he severed his connection with the company and settled on a farm along Sanders Creek in the SW 1/4 of Section 36, about 2 miles southeast of the depot (Gray 1868; Warner and Foote 1877:46; Western Historical Company 1881:929). The mound was located about 3/4 mile north of the Dean residence. According to W. W. Gilman, only a slight depression showing the effects of its exploration was still visible in 1903. No effort was made to relocate this mound, as it was well outside of the project area.

The other known site in the immediate vicinity is a cache of flint projectile points (47GT431) found by someone digging post holes for a fence on the Delos E. Ricks Estate in the S 1/2 of Section 34, Township 8 North, Range 3 West (Brown 1908:10). The site is located about 3/4 mile southwest of the upstream end of the project area. The find had been made some years before 1903 when W. W. Gilman reported the site to the State. The exact location of the implement cache is unknown. The Delos E. Ricks property or "Valley View Farm" is shown adjacent to the south corporate limits of Boscobel on 1895 and 1918 plat maps of Grant County (Foote 1895:23; Ogle 1918:29). Crooked Creek flows through the property at the base of a steep wooded bluff and enters the Wisconsin River west of Boscobel. The area today consists of commercial strip development along Highway 61 and farmland between Highways 61 and 133. No effort was made by the author to relocate this site.

The East Bluff Mounds (47GT429), Parker Hospital Mounds (47GT430), and Ricks Estate Implement Cache (47GT431) are new additions to the Wisconsin Archeological Codification File, an

inventory of known archeological sites in Wisconsin (Appendix D). All of the other prehistoric sites mentioned above were recently inventoried during a cultural resources literature search and records review of the proposed Lower Wisconsin River State Forest (Fay 1984).

No properties are listed on or determined eligible for the National Register of Historic Places in Boscobel. Several individual buildings and a possible downtown historic district at Boscobel have been identified as being potentially eligible for the National Register, however (Steele 1981:82-83).

The East Bluff Street stone-arch bridge that crosses Sanders Creek (P-22-708) at the upstream end of the project area is the only identified historic structure that will be adversely affected by the flood control project (Figure 4). The bridge was built in 1913 for about \$1,600 by a local contractor, Arthur W. Sabins (The Boscobel Dial-Enterprise, October 9, 1913), and is the only remaining stone bridge in the city. The 18-foot wide arch spans about 29 feet and rises about 8 feet. The total length of the bridge is about 35 feet. The sandstone used in the construction of the bridge was quarried locally.

The East Bluff Street stone-arch bridge was inventoried during an architectural reconnaissance survey in 1976 by the State Historical Society of Wisconsin and again in 1981 during an intensive architectural survey of the city (Steele 1981:11). The latter survey was conducted in conjunction with a master plan for Boscobel (Environmental Awareness Center 1982). The bridge was recently evaluated by the Wisconsin Department of Transportation and determined not eligible for the National Register of Historic Places (Hess and Frame 1986).

The East Bluff Street stone-arch bridge is one of nine bridges originally built across the meandering Sanders Creek within the corporate limits of Boscobel, as indicated by Sanborn fire insurance maps of Boscobel dating from 1884 to 1927. Of some interest are two earlier plank bridges built to span the creek on Wisconsin Avenue about one block west of the project area and a stone bridge at LaBelle Street. It is not presently known if earlier bridges at LaBelle, Park, Oak, and Superior Streets were stone-arch bridges similar to the one constructed at Bluff Street.

Several buildings of architectural and historical interest are or were located on Sanders Creek in the vicinity of the project area. The Carrier House Stable (now razed) was formerly located at the southwest corner of Superior and Valley Streets just west of Sanders Creek (Gray 1868). The stables served the Carrier House (originally Barnett House and later Grant House) on the east side of Wisconsin Avenue between Superior and LaBelle Streets (Gray 1868). It was operated at that time by Terrence Carrier, who had come to Boscobel in 1858 and set up a wagon shop, later trading it for the hotel which he operated for about

11 years (Western Historical Company 1881:928; Holford 1900:665; Boscobel Centennial History Committee 1973). The Carrier House burned down several years ago and the area is now a parking lot (Jamie Goldsmith, personal communication).

A bird's-eye view of Boscobel (Ruger and Stoner 1869) shows several early industries on Sanders Creek within or adjacent to the project area, including the two-story stone Boscobel Mill (now the Boscobel Farmer's Exchange Feed Mill at 715 Wisconsin Avenue) built in 1866 or 1867 by Captain D. R. Sylvester, north of the railroad tracks; R. H. Palmer's Wagon Shop (demolished) on the north side of Superior Street between Wisconsin Avenue and Valley Street near where the Boscobel Post Office built in 1956 is now; Sanders Creek Tannery (demolished) at the northeast corner of Superior and Valley Streets; and J. R. Muffley's Furniture Factory (demolished) between Park and Chestnut Streets south of Bluff Street.

The Boscobel Mill, one of the oldest structures in the city, was instrumental in the development of Boscobel as a local agricultural trade center, attracting business which had previously gone to mills located in Lancaster, Fennimore, Millville, and surrounding townships (Steele 1981:7). Water from Crooked Creek about one mile south of the mill, and not Sanders Creek, was used to power the grist mill. A millrace diverted water from Crooked Creek across lots to Wisconsin Avenue where it went underground and travelled first in a stone flume, or tunnel, then in an open, cribbed-up wooden flume that extended down Wisconsin Avenue to the mill. Part of the old stone millrace was uncovered during street construction at the intersection of Bluff Street and Wisconsin Avenue years ago (The Boscobel Dial, July 24, 1969). The mill is potentially eligible for the National Register of Historic Places (Steele 1981:82-83).

The Palmer Wagon Shop appears to have been in operation during the late 1860s and 1870s. Robert Palmer is listed as a blacksmith at Boscobel in the 1870 Census of Grant County (Wagner 1985).

J. R. Muffley came to Boscobel in 1856 or 1857 and opened his woodworking business of J. R. Muffley & Sons, Furniture and Undertaking (The Fennimore Times, January 24, 1928; The Boscobel Dial, February 2, 1967). A building reportedly built in 1857 by Muffley for his furniture business remains in altered condition at 1119 Wisconsin Avenue (Steele 1981:7).

Also shown on the 1869 bird's-eye view of Boscobel is a trout pond on Sanders Creek south of Bluff Street, just upstream from J. R. Muffley's Furniture Factory. The trout pond (not shown in Figure 3) was started in 1864 by Mr. A. Palmer, but was abandoned due to a scarcity of water. In 1866, Palmer successfully started another trout pond at a spring one mile south of the city of Boscobel where there was a constant supply of water (Boscobel Centennial History Committee 1973).

Later maps of Boscobel show the Parker-Hildebrand Company Creamery at the site of the tannery (Foote 1895:25; Sanborn Map Company 1912) and the John Duncan Woolen Mill where the Muffley Furniture Factory had operated (Foote 1895:25). The dates of construction and razing of the complex of buildings associated with the stables, wagon shop, tannery, creamery, furniture factory, and woolen mill are not presently known.

Three residences of local architectural and historical interest are east of Sanders Creek outside of the project area (Figure 3). A two-story red brick Greek Revival-style residence (pre-1868) located at 200 East LeGrand Street is associated with the George F. Hildebrand family and appears to be one of the oldest houses remaining in the city. Hildebrand, a native of Germany, settled in Boscobel in 1858, eventually becoming Dwight Parker's partner in a general store which operated for many years as the Parker, Hildebrand & Company (Western Historical Company 1881: 932; Boscobel Centennial History Committee 1973; Steele 1981:18).

A two-story frame house at 306 East Oak Street between Park and Chestnut Streets was converted into use as the Brookside Hospital in 1914 by Dr. F. S. Tuffley (Boscobel Centennial History Committee 1973). The hospital appears to have remained in operation at least until 1927, as shown on a Sanborn insurance map from that year. The house is now a private residence. For some reason, the house is not listed in the Wisconsin Inventory of Historic Places.

The Gov. John J. Blaine residence is at 305 East Oak Street. This two-story frame Queen Anne-style house is across the street from the old Brookside Hospital. Blaine was a Republican who served as governor of Wisconsin from 1921 to 1927. He began his law career in Boscobel in 1897 and served four terms as mayor. From 1909 to 1912 he served in the State Senate and from 1919 to 1921 was Attorney General of Wisconsin. From 1927 to 1933, he served in the U. S. Senate. Blaine was a vigorous advocate of progressivism and the principles of Robert M. LaFollette, Sr. (State Historical Society of Wisconsin 1960:38-39).

Also of local interest is the Boy Scout Cabin at the southeast corner of Park and LaBelle Streets in Boy Scout Park (originally East Side Park). The one-story structure is constructed of vertical logs. The cabin was built shortly after the local troop was formed in 1911 and is used for scout activities (Boscobel Centennial History Committee 1973; Steele 1981:11).

The Hildebrand and Gov. Blaine residences and the Boy Scout Cabin are not potentially eligible for the National Register of Historic Places (Steele 1981:82-83).

METHODS AND RESULTS

Survey techniques during the 5 days of fieldwork included (1) surface inspection; (2) interval shovel testing; (3) soil coring; (4) cut bank profiling; and (5) informant interviews.

Surface Inspection

After stopping in at the City of Boscobel Public Works Department and the North-West Telephone Company to check on the locations of possible buried utilities, the author walked over the project area from Bluff to Prairie Streets in search of any visible cultural materials or features. Gardens behind levees in the backyards of residences at 307 East Bluff Street, 409 and 601 Wisconsin Avenue, and west of Sanders Creek from Kansas to Prairie Streets were walked over in transects 5 to 15 feet apart in search of surface indications of chert debitage, pottery, fire-cracked rock, projectile points, and historic materials.

Areas clear of vegetation such as streambanks, footpaths, spoil piles surrounding animal burrows, and erosional surfaces under bridges were also carefully examined. A large cornfield east of Sanders Creek at the southwest corner of Prairie and Park Streets was obscured by this year's unpicked corn crop and, as a result, was not collected.

Modern historic materials such as ceramic drain tile and broken bottle glass were found eroding out of the sides of existing levees on both sides of Sanders Creek and on the surface under bridges. A stone barn foundation 40 feet long (north-south) by 30 feet (east-west) by about 15 inches high (4 courses) was found behind a levee in the backyard of the Hildebrand House at 200 East LeGrand Street. According to the present owner, the foundation was there when they purchased the property 16 years ago. Its date of construction is not presently known.

No evidence of any other building foundations or depressions was observed within or adjacent to the project area.

Shovel Testing

Following the surface survey, shovel testing was conducted along Sanders Creek and in two proposed spoil areas where vegetation such as grass, weeds, brush, and trees obscured the ground surface. Shovel tests were dug 45 to 50 feet apart along transects placed 10 to 50 feet from Sanders Creek or randomly according to existing terrain conditions. Deviation from the above intervals was unavoidable along the creek and in spoil areas where physical obstacles such as trees, bridge abutments and piers, storm sewer outlets, manholes, and playground equipment were present.

Random shovel testing was conducted in the spoil areas since it was obvious that soils in these areas had already been

disturbed by vegetable gardening (Survey Unit 6W), and by fill and grading activities (Survey Unit 3E). The City of Boscobel Public Works Department was hauling and dumping topsoil near a basketball court and levee in Boy Scout Park on the first day of the survey.

Shovel tests measured about 1 foot in diameter and from 1 to 3.5 feet in depth. All soil was thoroughly inspected as it was removed and screened through 1/4 inch hardware cloth. Each shovel test was backfilled before proceeding to the next test location. Materials recovered from shovel tests were placed in paper bags marked with appropriate coordinates and provenience data and the soil profile of each shovel test hole was recorded.

In all, 85 shovel tests were dug within the project area. Of this total, 45 shovel tests (#W1-45) were placed west of Sanders Creek and 40 (#E1-40) were placed east of the creek. Disturbed soils adjacent to bridge abutments and piers, levees, storm sewer outlets, manholes, and erosional gulleys were not investigated because of the low potential of finding archeological materials in these zones.

Shovel testing began west of Sanders Creek about 50 feet north of Bluff Street and proceeded north as far as Prairie Street. The area adjacent to the creek was investigated utilizing a single transect comprising 38 shovel tests. Six shovel tests (#W1-6) were placed from Bluff to Oak Streets (Survey Unit 1W), six (#W7-12) from Oak to LaBelle Streets (Survey Unit 2W), six (#W13-18) from LaBelle to Superior Streets (Survey Unit 3W), four (#W19-22) from Superior Street to the railroad bridge (Survey Unit 4W), six (#W23-28) from the railroad bridge to Kansas Street (Survey Unit 5W), and ten (#W29-38) between Kansas and Prairie Streets (Survey Unit 6W).

Additional shovel tests were dug on the west side of Sanders Creek near an existing levee at the northeast corner of Valley and LaBelle Streets in Survey Unit 3W (#W39) and within a proposed spoil area north of Kansas Street in Survey Unit 6W (#W40-45). The latter is bordered on the south by a vacant lot containing fill, on the north by a residence and several cottonwood trees, on the west by a garden, and on the east by Sanders Creek.

The east side of Sanders Creek within the project area was tested utilizing 36 shovel tests placed along a single transect that extended from Bluff to Prairie Streets. Five shovel tests (#E1-5) were placed from Bluff to Oak Streets (Survey Unit 1E), five (#E6-10) from Oak to LaBelle Streets (Survey Unit 2E), six (#E11-16) from LaBelle to Superior Streets (Survey Unit 3E), six (#E17-22) from Superior Street to the railroad bridge (Survey Unit 4E), five (#E23-27) from the railroad bridge to Kansas Street (Survey Unit 5E), and nine (#E28-36) between Kansas and Prairie Streets (Survey Unit 6E). Four additional shovel tests (#E37-40) were dug within a proposed spoil area on the terrace in

Boy Scout Park (Survey Unit 3E). The park is bordered on the north by Superior Street, on the south by LaBelle Street, on the east by Park Street, and on the west by a levee along Sanders Creek.

Testing along Sanders Creek, for the most part, revealed from .1 to .8 foot of very dark grayish brown silt loam or brown/dark brown sand humus and sod zone overlying stratified brown, grayish brown, pale brown, and yellowish brown silt and sand alluvium that extended over 3 feet deep. Three shovel tests (#E30-32) placed along the creek near a vegetable garden north of Kansas Street (Survey Unit 6W) revealed a silt loam plow zone about .9 foot thick and dark grayish brown in color. Approximately 2 to 3 feet of fill containing brick and limestone rubble was found in Boy Scout Park.

Soils along the creek within the project area area were wet and heavy from above normal rainfall in September. The soils in four shovel tests placed in Boy Scout Park, in contrast, were dry and loose.

Of the 85 shovel tests dug, 16 (18.8 percent) contained historic materials. Four are located on the west side of the creek. Shovel Tests #W6 placed about 50 feet south of the footbridge at Oak Street (Survey Unit 1W) and #W17 placed 100 feet north of Superior Street (Survey Unit 3W) each yielded one piece of clear plastic. Shovel Test #W27 placed about 100 feet south of Kansas Street along the channelized creek (Survey Unit 5W) contained three aluminum pie tin fragments and one dark green plastic fragment. Shovel Test #W34 placed in the creek bottoms behind a residence at 601 Wisconsin Avenue (Survey Unit 6W) yielded one unidentifiable metal fragment. All of the historic materials were found in the upper .45 to .6 foot of humus. No cultural material was found in any shovel tests placed within Survey Units 2W and 4W or the proposed spoil area north of Kansas Street.

Ten shovel tests dug on the east side of Sanders Creek contained historic materials. Shovel Test #E10 placed about 50 feet south of LaBelle Street (Survey Unit 2E) yielded one wire fragment about 1.2 feet in length. Four shovel tests in Survey Unit 3E contained historic materials, including one black plastic strip fragment of an unknown function (#E11), one pale green window glass fragment 3/32 inch thick (#E12), one clear and one black plastic strip fragment (#E13), and one piece of styrofoam (#E16). Three shovel tests in Survey Area 4E yielded materials including a single clear plastic fragment from #E17 placed near the Superior Street footbridge and several pinkish red (Baraboo?) quartzite rocks from #E21 and #E22 placed just south of the railroad bridge. The latter were found at a depth of about 1 foot and appear to be from the nearby railroad bed. In Shovel Test #E28 dug about 100 feet north of Kansas Street (Survey Unit 6E), two lead fragments and one orange brick fragment were recovered from disturbed soils at a depth of about 1.5 feet.

Three of four shovel tests dug in Boy Scout Park yielded historic materials. Shovel Test #E37 placed about 50 feet south of Superior Street and 35 feet from a softball backstop contained 26 items, including two undecorated whiteware body sherds (one is exfoliated), one curved blue glass fragment, three curved clear glass fragments, two pale green window glass fragments 3/32 inch thick, one square-cut nail fragment, one 9d wire nail, two wire fragments, three unidentified metal fragments, one metal "coffee can" turn key, three pieces of aluminum foil, six red brick fragments, and one mortar fragment.

Shovel Test #E38 placed about 65 feet south of Superior Street and 40 feet from the top of a levee produced the most materials - a total of 115 items. Materials recovered include one red plastic comb fragment; one undecorated whiteware body sherd; one gray glazed coarse earthenware rimsherd with a brown Albany-like interior slip; 13 curved clear glass fragments; one clear circular screw-on glass jar rim; one curved pale green glass fragment; four curved brown glass fragments; one pale green window glass fragment 3/32 inch thick; one square-cut nail fragment; one 7d square cut nail; two 8d wire nails; one 6d wire nail; two 4d wire nails; two wire nail fragments; one iron spike fragment; six pieces of aluminum foil; one cinder; two mortar fragments; one black rubber fragment; seven unglazed red ceramic tile fragments (three have mortar on exterior surfaces); and 65 tin can fragments (three are circular lids).

Shovel Test #E40 placed about 65 feet east of Park Street and 30 feet from a teetertotter yielded 24 items, including one coarse earthenware body sherd with a molded exterior surface and light blue glazed interior; ten curved clear glass fragments; one clear glass vial rim; one curved brown stippled glass; three window glass fragments of 5/64, 3/32, and 1/8 inch thick, respectively; one 6d wire nail; one strand of barb wire; three unidentifiable metal fragments; two pieces of coal; and one orange brick fragment. All of the historic materials were found in the upper .2 to .8 foot of humus and the underlying 2 to 3 feet of sand, silt, and gravel and rubble fill.

No cultural material was found in any of the shovel tests placed within Survey Units 1E and 5E or in Shovel Test #E39 placed in the park about 25 feet northeast of a concrete slab basketball court and 80 feet from the northwest corner of the Boy Scout Cabin.

Soil Coring

Soil coring supplemented subsurface testing at 31 shovel test locations within the project area (#W1-3, W7-8, W10, W12, W15, W17-18, W21, W26, W29, W33, W38-39, E1-2, E7, E12, E14, E18, E21-23, E26, E28-29, E33-34, and E39). The soils from each probe were removed using an Oakfield hand coring tool, then carefully examined and recorded. The soil probes extended to a maximum

depth of 5 feet until wet clays or sands were encountered. No cultural material was recovered from the soil probes.

Cut Bank Profiles

Three cut bank profiles were made in steeply eroded banks within the project area: south of Oak Street (A) and north of Kansas Street (B) on the east side of Sanders Creek and south of the railroad bridge (C) on the west side of the creek (Figure 18). Soils were removed first by shovel skimming, then by hand trowelling until a clear view of soils was obtained. Soil profiles were mapped using measuring tapes, line levels, and a Munsell Soil Color Chart. The soil profiles extended to a maximum depth of about 4.5 feet or until water from the creek was encountered.

The soil profiles revealed large amounts of redeposited silt and sand along Sanders Creek resulting from repeated flooding and erosion of cropland and streambanks located upstream. According to Roy Bolchen, Superintendent of Streets at Boscobel, portions of the channel have been cleaned out periodically with a backhoe to remove several feet of alluvium under bridges which cross the creek. No cultural materials or features were observed in any of the bank cuts.

Informant Interviews

During the course of the Phase I field investigation, the author conducted interviews with employees at the City of Boscobel Public Works Department and with residents who live adjacent to Sanders Creek at 307 East Bluff Street, 200 East LeGrand Street, and 409 Wisconsin Avenue to determine if any prehistoric or historic archeological materials and features had ever been collected or observed by them along the creek or in their gardens and yards. No one interviewed knew of any cultural materials that had been found in or adjacent to the project area.

IMPACT AND RECOMMENDATIONS

An intensive archeological survey of the proposed flood control project at Boscobel revealed no evidence of any early historic or prehistoric occupation or utilization. Furthermore, no structural remains associated with the early industrial or commercial development of Boscobel along Sanders Creek were found. All of the historic materials observed during surface inspection and recovered during shovel testing date to the modern period and are the result of fill, grading, and recent land use activities in the area. No potentially eligible sites, that is, properties that would qualify for the National Register of Historic Places, are threatened by the proposed development.

Because of these findings and the heavily disturbed soil conditions resulting from the channelization of Sanders Creek, the construction of levees, roads, bridges, and storm sewers, and

A

B

C

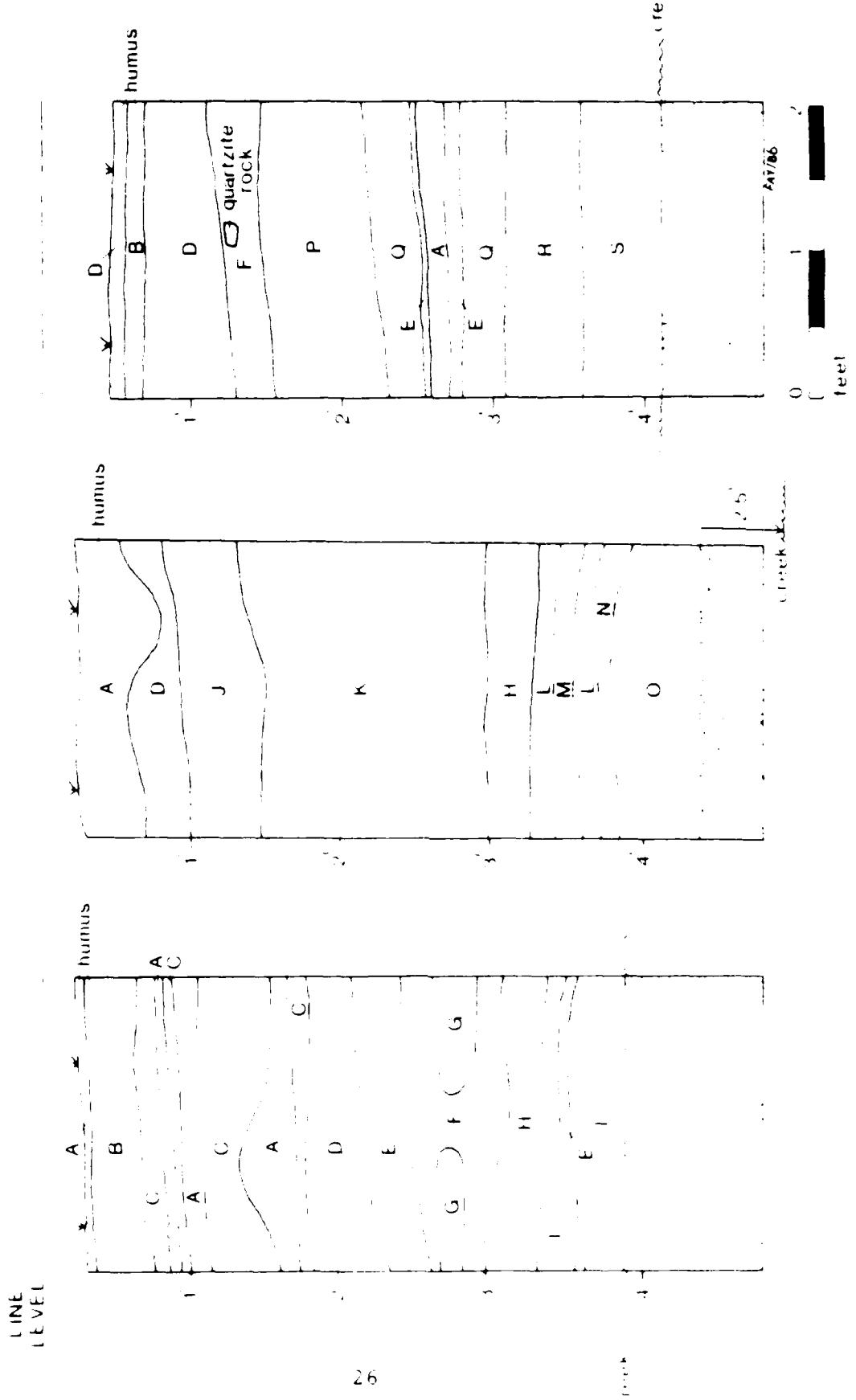


Figure 18. Cut Bank Soil profiles along Sanders Creek.

Legend for Figure 18 - Cut Bank Soil Profiles Along Sanders Creek

- A Very Dark Grayish Brown (10YR 3 2) Silt Loam
- B Brown (10YR 5/3) Sand
- C Mottled Brown/Yellowish Brown (10YR 5 3, 5-4) Sand
- D Dark Brown (10YR 3/3) Sand
- E Mottled Brown/Dark Brown (10YR 4 3, 3 3) Sand
- F Mottled Very Dark Grayish Brown Dark Brown (10YR 3 2, 3 3) Sand
- G Dark Yellowish Brown (10YR 4 4) Sand
- H Yellowish Brown (10YR 5/4) Sand
- I Mottled Dark Gray Dark Grayish Brown (10YR 4 1, 4 2) Silt Loam
- J Mottled Brown Dark Brown (10YR 5 3, 3 3) Silt Loam
- K Compact Brown (10YR 5 3) Silt Loam
- L Mottled Brown Light Yellowish Brown (10YR 5 3, 6 4) Silt Loam
- M Mottled Brown Dark Brown (10YR 4 3, 3 3) with Pale Brown (10YR 6 3) Sand Lenses
- N Yellowish Brown (10YR 5/4) Sand and Gravel
- O Mottled Dark Grayish Brown Brown (10YR 4 2, 5 3) Silt Loam
- P Very Dark Grayish Brown (10YR 3 2) Silt Loam and Three Brown Dark Brown (10YR 4 3) Sand Lenses
- Q Mottled Dark Grayish Brown/Dark Reddish Brown (10YR 4 2, 5YR 3 3) Silt Loam
- R Mottled Very Dark Grayish Brown Dark Brown (10YR 3 2, 3 3) Silt Loam
- S Wet, Dark Gray (10YR 4 1) Silt Clay

soil erosion and deposition, the project area from Bluff Street to Prairie Street warrants no further archeological or historical research for the identification or evaluation of cultural resources.

If cultural materials from deeply buried archeological sites are unearthed during the course of construction, the State Archeologist in Madison (608 262-9566) should be notified immediately for assistance in determining the significance of any sites encountered.

ACKNOWLEDGEMENTS

I wish to thank David E. Berwick and Terry Pfutzenreuter of the U. S. Army Corps of Engineers, St. Paul District, for providing details and maps of the Boscobel flood control project. Robert S. Newberry, Historian, Bureau of Environmental Analysis, Wisconsin Department of Transportation, provided information on the stone-arch bridge across Sanders Creek at Bluff Street. I also thank Nicholas Houtman and Jamie Goldsmith of The Boscobel Dial for providing information on the history of flooding in Sanders Creek in Boscobel.

REFERENCES CITED

Blaine, John J.

1921 Letter to Charles E. Brown dated February 1, 1921.
Charles E. Brown Papers, Box 25, State Historical
Society of Wisconsin, Madison.

Boscobel Centennial History Committee

1973 Boscobel Centennial 1873-1973 Heritage Album.
Boscobel Dial, Boscobel, Wisconsin.

Brazeau, Linda A.

1978 Archeological Inventory and Evaluation of the
Proposed Wastewater Treatment Facilities, Boscobel,
Wisconsin. Reports of Investigation No. 48. Great
Lakes Archeological Research Center, Inc., Waukesha.

Brown, Charles E.

1906 A Record of Wisconsin Antiquities. The Wisconsin
Archeologist 3: 3-4 :289-423.

1908 Additions to the Record of Wisconsin Antiquities III.
The Wisconsin Archeologist 7: 1:1-10.

1914 Additions to the Record of Wisconsin Antiquities III.
The Wisconsin Archeologist 8: 4:116-128.

1912 Fourth Addition to the Record of Wisconsin Antiquities.
The Wisconsin Archeologist 11: 4:161-181.

1925a Fifth Addition to the Record of Wisconsin Antiquities
A to M. The Wisconsin Archeologist 4 (1):9-78.

1925b Fifth Addition to the Records of Wisconsin Antiquities, Part II. The Wisconsin Archeologist 4 (2):85-144.

Curtis, John T.

1959 The Vegetation of Wisconsin - An Ordination of Plant Communities. The University of Wisconsin Press, Madison.

Dean, C. K.

1882 Opening of a Mound near Boscobel. Report and Collections of the State Historical Society of Wisconsin 9:75.

Environmental Awareness Center

1982 City of Boscobel Master Plan. University of Wisconsin, Madison.

Fay, Robert P.

1984 Cultural Resources Literature Search and Records Review of the Proposed Lower Wisconsin River State Forest. Archaeological Report No. 11. Wisconsin Department of Natural Resources, Bureau of Parks and Recreation, Madison.

Gilman, W. W.

1903 Letter to Charles E. Brown dated July 6, 1903. Charles E. Brown Papers, Box 25, State Historical Society of Wisconsin, Madison.

1906 Letter to Charles E. Brown dated April 2, 1906. Charles E. Brown Papers, Box 25, State Historical Society of Wisconsin, Madison.

Hess, Jeffrey A. and Robert M. Frame, III

1986 Historic Bridges in Wisconsin, Stone-Arch and Concrete-Arch Bridges. Wisconsin Department of Transportation, Madison.

Holiford, Castello N.

1900 History of Grant County, Wisconsin. Lancaster, Wisconsin.

Lewis, Theodore H.

1891, Northwestern Archeological Survey - Lewis Notebook 32.
1892 On file, Minnesota Historical Society, St. Paul.

Martin, Lawrence

1965 The Physical Geography of Wisconsin. Third edition. The University of Wisconsin Press, Madison.

Miller, Towne L.

1932 Report of the State Archaeological Survey Committee
for the Season of 1931. The Wisconsin Archeologist
11 (2):61-66.

Petersen, Robert

1979 The Wisconsin Effigy Mounds Project, I. Luther
College Archaeological Research Center, Decorah, Iowa.

Robinson, Glenn H. and A. J. Klingelhoets

1961 Soil Survey of Grant County, Wisconsin. United States
Department of Agriculture, Soil Conservation Service
in cooperation with the Wisconsin Geological and
Natural History Survey and Wisconsin Agricultural
Experiment Station. Government Printing Office,
Washington, D. C.

Smith, Tom D. and Joseph R. Ball

1971 Surface Water Resources of Grant County, Wisconsin.
Lake and Stream Classification Project. Wisconsin
Department of Natural Resources, Madison.

State Historical Society of Wisconsin

1960 Dictionary of Wisconsin Biography. Madison.

Steele, Dorothy

1981 An Intensive Architectural and Historical Survey of
Boscobel. Historic Preservation Division, State His-
torical Society of Wisconsin, Madison.

Thomas, Cyrus

1891 Catalogue of Prehistoric Works East of the Rocky
Mountains. Bureau of Ethnology Bulletin No. 12.
Washington.

Tuffley, F. S.

1921 Letter to Charles E. Brown dated February 9, 1921.
Charles E. Brown Papers, Box 25, State Historical
Society of Wisconsin, Madison.

United States Army Corps of Engineers

1986 Decision Report for Flood Control at Sanders Creek,
Boscobel, Wisconsin. St. Paul District.

United States General Land Office

1833, Surveyor's Field Notes of Township No. 8 North, Range
1840 3 West of the 4th Principal Meridian. Microfilm copy
on file, State Historical Society of Wisconsin,
Madison.

Wagner, Karen P.

1985 Grant County Wisconsin 1870 Census. Glen Haven,
Wisconsin.

West, George A.

1907 The Indian Authorship of Wisconsin Antiquities. The Wisconsin Archeologist 6 (4):169-253.

Western Historical Company

1881 History of Grant County, Wisconsin. Chicago.

MAPS

Brock and Company

1929 Assessor's Plat, City of Boscobel, Wisconsin. Copy on file, City Clerk's Office, Boscobel, Wisconsin.

Brown, Charles E.

1909 Sketch map dated July 24, 1909 of the Sanders Creek Group at Boscobel, Wisconsin. Charles E. Brown Papers, Box 25, State Historical Society of Wisconsin, Madison.

Foote, C. M.

1895 Plat Book of Grant County, Wisconsin. Minneapolis.

Gray, Warren

1868 New Map of Grant County, Wisconsin. New York.

Ogle, George A.

1918 Standard Atlas of Grant County, Wisconsin. Chicago.

Ruger and Stoner

1869 Bird's Eye View of Boscobel, Grant County, Wisconsin. Chicago.

Sanborn Map Company

Sanborn Fire Insurance Maps for Boscobel, Wisconsin. Chicago. 1884, 1892, 1899, 1904, 1912, 1927.

Snyder, Van Vechten and Company

1878 Historical Atlas of Wisconsin, pp. 58-59. Milwaukee.

United States Geological Survey

1933 Boscobel, Wisconsin 15 minute Series Topographic Quadrangle.

1983 Boscobel, Wisconsin 7.5 minute Series Topographic Quadrangle.

Warner and Foote

1877 Atlas of Grant County, Wisconsin. Red Wing, Minnesota.

Wisconsin Geological and Natural History.

1965 Early Vegetation of Wisconsin. Color map.

1981 Bedrock Geology of Wisconsin. Color map.

NEWSPAPERS

The Boscobel Dial-Enterprise, October 9, 1913 - City Council Proceedings Concerning the Bluff Street Stone Arch Bridge.

The Boscobel Dial, June 22, 1944 - Flood Waters Damage Homes and Gardens Here.

The Boscobel Dial, June 19, 1947 - City Cleaning Up After the Worst Flood in Its History..

The Boscobel Dial, March 16, 1950 - Will the Creek Behave This Spring?

The Boscobel Dial, July 20, 1950 - Cyclonic Winds, Flash Floods, Hit This Area.

The Boscobel Dial, July 30, 1964 - Flash Flood Precipitated by 4-Inch Rain.

The Boscobel Dial, February 2, 1967 - Rust Furniture 110-Year-Old-Business.

The Boscobel Dial, July 24, 1969 - Found at Last, The Old Millrace.

The Fennimore Times, January 24, 1928 - 'Old' Boscobel.

APPENDIX A

STATE HISTORICAL SOCIETY OF WISCONSIN REVIEW LETTER



THE STATE HISTORICAL SOCIETY OF WISCONSIN
816 State Street Madison, Wisconsin 53706 608 262-3266

H. Nicholas Muller III, Director

HISTORIC PRESERVATION DIVISION

June 25, 1986

Mr. Robert J. Whiting
St. Paul District, Corps of Engineers
1135 U.S. Post Office & Custom House
St. Paul, Minnesota 55101-1479

SHSW: 86-0632
RE: Flood Control Project at Boscobel

Dear Mr. Whiting:

Thank you for notifying us of the above-referenced project.

We agree with your opinion that the Bluff Street stone arch bridge is not eligible for listing in the National Register of Historic Places. In order to evaluate the significance of the other bridges involved in this project we need additional information. Please provide a description and give the construction dates for the bridges located at Prairie Street and Kansas Street and for the railroad bridge. If these bridges are over 50 years old, please provide recent photographs of them and historical information about them.

We are enclosing copies of the site cards for the three known archeological sites located in the Boscobel area. Only GT-5 is potentially in the project area, but the three sites together indicate that the area has high archeological potential. We recommend that the following project areas be surveyed for archeological resources: 1) the project area in the southwest quarter of Section 26 should be checked for GT-5; 2) the area north of Prairie Street where the existing levee may be flattened onto agricultural land; and 3) the disposal site between Highway 61 and Walnut Street, unless it is already disturbed. (We can't determine from the USGS quadrangle map if this is a natural or excavated depression.) The other disposal site at the quarry is not likely to contain archeological materials and need not be surveyed.

If there are any questions concerning this matter, please contact me at (608) 262-2732.

Sincerely,


Richard W. Dexter
Chief, Compliance and Archeology
Section

RWD:jh/5554a/6
Enclosure

APPENDIX B
SCOPE OF WORK

SCOPE OF WORK
PHASE I CULTURAL RESOURCES INVESTIGATION
FOR A FLOOD CONTROL STUDY AT BOSCOBEL, WISCONSIN

1.00 INTRODUCTION

1.01 The Contractor will undertake a Phase I cultural resources investigation of flood control measures at Boscobel, Wisconsin.

1.02 This investigation partially fulfills the obligations of the Corps of Engineers (Corps) regarding cultural resources, as set forth in the National Historic Preservation Act of 1966 (Public Law [PL] 89-665), as amended; the National Environmental Policy Act of 1969 (PL 91-190); Executive Order (EO) 11593 for the "Protection and Enhancement of the Cultural Environment" (Federal Register, May 13, 1971); the Archeological and Historical Preservation Act of 1974 (PL 93-291); the Advisory Council on Historic Preservation "Regulations for the Protection of Historic and Cultural Properties" (36 CFR, Part 800); and the applicable Corps regulations (ER 1105-2-50).

1.03 The laws listed above establish the importance of Federal leadership, through the various responsible agencies, in locating and preserving cultural resources within project areas. Specific steps to comply with these laws, particularly as directed in PL 93-291 and EO 11593, are being taken by the Corps "... to assure that Federal plans and programs contribute to the preservation and enhancement of non-federally owned sites, structures, and objects of historical, architectural, or archeological significance." A part of that responsibility is to locate, inventory, and nominate to the Secretary of the Interior all such sites in the project area that appear to qualify for listing on the National Register of Historic Places.

1.04 EO 11593 and the 1980 amendments to the National Historic Preservation Act further direct Federal agencies "... to assure that any federally owned property that might qualify for nomination is not inadvertently transferred, sold, demolished or substantially altered." In addition, the Corps is directed to administer its policies, plans, and programs so that federally and non-federally owned sites, structures, and objects of historical, architectural, or archeological significance are preserved and maintained for the inspiration and benefit of the people.

1.05 This cultural resources investigation will serve several functions. The report will be a planning tool to aid the Corps in meeting its obligations to preserve and protect our cultural heritage. It will be a comprehensive, scholarly document that not only fulfills federally mandated legal requirements but also serves as a scientific reference for future professional studies. It will identify resources that may require additional investigations and that may have potential for public-use development. Thus, the report must be analytical, not just descriptive.

2.00 PROJECT DESCRIPTION

2.01 The flood control project at Boscobel, Wisconsin will protect the city of Boscobel from flash flooding along Sanders Creek which runs through the central portion of the city. The creek enters the Wisconsin River about 1 mile west of the corporate limit, draining an area of approximately 16 square miles above Boscobel. The watershed is very steep, and some channel slopes exceed 40 feet per mile. The length of the channel within the city is 2.1 miles.

2.02 The largest flood of record was a 1950 flood, where a 7-inch rainfall, centered over the drainage basin, inundated more than 20 blocks of the city. Following the 1950 flood, the city constructed an intermittent system of levees in low areas along both banks of Sanders Creek in a reach extending from near Prairie Street to near Fremont Street. These low levees are well landscaped, and in some areas they are not easily distinguished from the surrounding terrain because of fill that was placed behind them.

2.03 Within the city limits, Sanders Creek is characterized by a series of pools interspersed with rock riffles. For the most part, the creek has a sandy bottom. In the city, much of Sanders Creek is contained within a grassed flood channel. Very little overhead vegetative cover is present except upstream of Bluff Street and downstream of Kansas Street where there are shrubs, small willows, and larger deciduous trees.

2.04 The project will consist of channel modification, bridge work, and levee work (enclosure 1). Modification of the existing overflow channel will extend from Bluff Street to Prairie Street. The bottom width of the excavated channel will be 50 feet wide and have side slopes of 1 vertical on 3 horizontal. It will be grass covered except at the bridges where riprap will be placed to protect the bridge abutments, and on the outside of selected bends to protect the bank from erosion. Currently there is a distance of approximately 6 feet from top of bank to channel thalweg. Excavation of the proposed channel will remove about 3 feet of material adjacent to the channel, leaving the natural channel substantially unaltered. Interviews with locals indicate that there has been at least 3 feet of sedimentation along portions of the creek since it was originally channelized in late 1940's or early 1950's. This sedimentation is concentrated in areas below the Prairie Street bridge and under the bridges which cross Sanders Creek.

2.05 A cultural resources survey shall be conducted in the area of channel excavation to determine if extant sites are present. Since much of the area appears to be historically modified by channelization (see section 2.09, below) and sedimentation, preliminary efforts should address defining areas which are likely to need intensive archeological survey work. This should be done through literature search, local interviews, and the use of field methods such as coring and augering.

2.06 Bridge work at Boscobel will consist of replacing the Kansas Street bridge. This bridge replacement is necessary in order to provide the clearance to pass maximum design flows under this structures. Two additional bridges, the railroad bridge and the bridge located at Prairie Street, would have their abutments replaced. No further alteration of these bridges will be

required. A drop structure will be placed either under the Bluff Street bridge or immediately downstream. This alternative may require replacement of the bridge.

2.07 The Bluff Street bridge is a stone arch bridge that has recently been evaluated as a historic resource by the Wisconsin Department of Transportation (DOT). It is the opinion of the DOT contractor that this bridge is not eligible for the National Register of Historic Places; therefore, no historical or architectural work will be necessary for the Bluff Street bridge.

2.08 Several locations have been identified as potential fill areas for the material that will be excavated from the channel. Material will be placed immediately adjacent to the excavated channel in vacant areas behind the existing levees. The remaining material will be placed in an existing quarry site south of the city. The former site will be surveyed for cultural resources.

2.09 A plat map (enclosure 2) of the City of Boscobel, dating to the mid to late 1920's, shows the location of Sanders Creek prior to the channelization that was completed in the 1940's or 1950's. From a comparison of this plat map with the USGS quadrangle map, it appears that only a few reaches of Sanders Creek are in the same location as those shown on the plat map.

2.10 Two prehistoric sites are located in the vicinity of Boscobel; GT-5 is reported in the state site files as being located along Sanders Creek in Section 26, and GT-7, a mound group, was located at the confluence of Sanders Creek and the Wisconsin River. Information on these sites should be obtained from the State Historic Preservation Office.

2.11 Architectural and historic surveys of Boscobel have been conducted in 1975 and again in 1981. The earlier survey of the city was a reconnaissance survey conducted by the State Historical Society. During the fall of 1981 an intensive survey of the city was conducted in conjunction with the development of a master plan for Boscobel. The only identified structure which may be impacted by the flood control project is the Bluff Street stone arch bridge that is referenced in paragraph 2.06, above.

3.00 DEFINITIONS

3.01 Cultural Resources include any building, site, district, structure, object, data, or other material relating to the history, architecture, archeology, or culture of an area.

3.02 A Phase I Cultural Resources Survey is an intensive, on-the-ground study of an area sufficient to determine the number and extent of the resources present and their relationships to project features. It will provide (1) data adequate to assess the general nature of the sites present; (2) recommendations for additional testing of those resources that may provide important cultural and scientific information; and (3) detailed time and cost estimates for Phase II testing.

3.03 Phase II Testing is the intensive testing of a resource that may provide

important cultural or scientific information. This testing will result in (1) information adequate to determine whether the resource is eligible for inclusion on the National Register of Historic Places; (2) a Phase III mitigation plan for any eligible resources that will undergo a direct or indirect impact; and (3) detailed time and cost estimates for the mitigation.

3.04 Phase III Mitigation is the mitigation of the direct or indirect impacts of construction up eligible sites through the systematic removal of data. It typically includes the excavation of either complete cultural deposits or a systematic sample of them and the thorough analysis and interpretation of the data recovered. The excavation, analysis, and interpretation methods must be adequate to address the important research questions based on which the resource was determined eligible. In addition, because the mitigation process destroys the resource, data should be recovered that may be needed to address future research questions.

4.00 SURVEY REQUIREMENTS

4.01 The Contractor will conduct a Phase I cultural resources investigation at Boscobel, Wisconsin, in accordance with Sections 2.00 and 3.02 above.

4.02 The Contractor's work will be subject to the supervision, review, and approval of the Contracting Officer's representative.

4.03 The Contractor will employ a systematic, interdisciplinary approach in conducting the study, using techniques and methods that represent the current state of knowledge for the appropriate disciplines. The Contractor will provide specialized knowledge and skills as needed, including expertise in archeology and other social and natural sciences, particularly geomorphology. Expertise in geomorphology will facilitate the interpretation of historic sedimentation along the channel and identify areas where prehistoric sites may be buried under alluvium.

4.04 The Contractor will provide all materials and equipment necessary to perform the required services expeditiously.

4.05 The Contractor's survey will be an on-the-ground examination sufficient to determine the number and extent of any cultural resources present, including standing structures as well as prehistoric and historic archeological sites.

4.06 The Contractor's survey will include surface inspection in areas where surface visibility is adequate to reveal any cultural materials that are present and subsurface testing in all areas where surface visibility is inadequate. Subsurface investigation will include shovel testing, coring, soil borings, cut bank profiling, or other appropriate methods. If the field methods used vary from those that are required, they must be described and justified in the Contractor's report.

4.07 The survey interval required for subsurface testing is 15 meters (50 feet). However, this interval may vary depending upon field conditions, site density, or size. If a larger interval is used, this decision must be

justified in the Contractor's report.

4.08 The Contractor will screen all subsurface tests through 1 4-inch mesh hardware cloth.

4.09 The Contractor will recommend any Phase II testing measures that are warranted, including time and cost estimates.

4.10 If it becomes necessary in the performance of the work and services, the Contractor will, at no cost to the Government, secure the rights of ingress and egress on properties not owned or controlled by the Government. The Contractor will secure the consent of the owner, or the owner's representative or agent, in writing prior to effecting entry on such property. If requested, a letter of introduction signed by the District Engineer can be provided to explain the project purposes and request the cooperation of landowners. Where a landowner denies permission for survey, the Contractor must immediately notify the Contracting Officer's representative and must describe the extent of the property to be excluded from the survey.

4.11 The Contractor will return all surveyed areas as closely as practical to presurvey conditions.

4.12 The Contractor must keep standard records that include field notes and maps, site survey forms, subsurface testing forms, and photographs.

4.13 State site forms will be prepared for all sites discovered during the survey, and records on previously reported sites will be updated if new information is obtained. Data should be included on the present condition of each site and on the contents and locations of any collections from it. The Contractor will also submit all site forms and updates to the appropriate State agency.

4.14 Cultural materials and associated records from the study should be curated at an institution that can ensure their preservation and make them available for research and public view. Curation should be within the State and as close as possible to the project area. The Contractor will be responsible for making curatorial arrangements, coordinating them with the appropriate officials of Wisconsin, and obtaining approval from the Contracting Officer's representative.

5.00 GENERAL REPORT REQUIREMENTS

5.01 The Contractor will submit the following documents, described in this section and Section 6.00: a field report, field notes, a draft contract report, and a final contract report.

5.02 The Contractor's field report will be a brief summary of the nature, extent, and results of the field work conducted. It may be in the form of a letter to the Contracting Officer's representative.

5.03 The Contractor's field notes will include legible copies of important notes and records kept during the investigation. Especially important are the

copy, field journal of the Principal Investigator or field director, field site survey forms, and subsurface testing forms. One copy of these notes should be submitted to the Contracting Officer's representative with the draft contract report but should not be bound into the report.

5.4 The draft contract report will detail the approach, methods, and results of the investigation, and make recommendations for further work. It will be submitted to the Contracting Officer's representative, who will review it and forward it to other appropriate agencies for review. Comments will be returned to the Contractor, who will make the necessary revisions and submit the final contract report.

5.5 The Contractor's draft and final reports will include the following sections, as appropriate to the study. The length of each section depends on the level of detail required of the study and the amount of information available. The reports should be as concise as possible, yet provide all the information needed for evaluating and managing the project and for future reference.

a. Title page: The title page will provide the following information: the type of study; the types of cultural resources assessed (archeological, historical, and architectural); the project name and location (county and state); the date of the report; the Contractor's name; the contract number; the name of the author(s) and/or Principal Investigator; the signature of the Principal Investigator; and the agency for which the report is being prepared.

b. Management summary: This section will provide a concise summary of the study, containing all the information needed for management of the project. This information will include the reason the work was undertaken and the sponsor was; a brief summary of the scope of work and budget; a summary of the field work and lab analysis; the limitations of the study; the results; the significance of the results; recommendations for further work; and the location of records and artifacts.

c. Table of contents

d. Abbreviations

e. Acronyms

f. Introduction: This section will identify the sponsor's name, name of Engineers, and their reason for the study, and present an overview of the study with each site located on USGS quad maps. It will also define the location and boundaries of the study area, using regional and area-specific maps to delineate the study area within its regional, cultural, and environmental context. Reference the source of work, identify the institution that put the work out, the number of people and person-days hours involved, give the dates when the various phases of the work were completed, identify the results of the work, and artifacts, and provide a brief outline of the regional and local history of the area or county.

g. Procedure of Technical and Management Study: This section will

briefly summarize and evaluate previous archaeological and historical research in the study area including the researchers, dates, extent, adequacy, and results of past work and any cultural behavioral inferences derived from it.

h. Environmental background: This section will briefly describe the current and prehistoric environment of the study area, including its geology, vegetation, fauna, climate, topography, physiography, and soils. The relationship of the environmental setting to the area's prehistoric and history should be stressed. The level of detail in this section will be commensurate with that of the other report sections.

i. Theoretical and methodological overview: This section will state the goals of the sponsor and the researcher, the theoretical and methodological orientation of the study, and the research strategies that were applied to achieve the goals.

j. Field methods: This section will describe all field methods, techniques, and strategies and the reasons for using them. It will also describe field conditions, relevant topographic physiographic features, vegetation conditions, soil types, stratigraphy, general survey results, and the reasons for eliminating any uninvestigated areas.

k. Laboratory and analysis methods: This section will explain the laboratory methods employed and the reasons for selecting them. It will reference accession or catalog numbers of any collections, photographs, or field notes obtained during the study and state where these materials are permanently housed. It will also describe and justify the specific analytical methods used, including any quantitative analysis of the data, and discuss limitations or problems with the analysis.

l. Results: This section will describe all cultural resources found during the study. It will minimally include each site's description (including size, depth, and artifact density); its location (USGS quad, legal description, elevation, and address if appropriate); the amounts and types of remains recovered; its environmental setting; its current condition; the direct and indirect impacts of the project upon it; and any additional interpretations (e.g., site type, cultural components, and human behavioral information).

m. Evaluation and conclusions: This section will formulate conclusions about the location, size, condition, and distribution of the resources found; their relationships to other sites in the area; and their possible importance in terms of local and regional prehistory, protohistory, and history. It will also relate the results of the study to the stated goals; identify any changes in the goals; assess the reliability of the analysis; and discuss the potential, or goals for future research.

n. Recommendations: This section will recommend any further work deemed necessary. It will summarize Phase II evaluation measures that would be needed to determine whether specific resources are eligible for the National Register of Historic Places, as well as a time and cost estimate for this work. It will also describe any areas that were inaccessible, and recommend

future treatment of them. If the Contractor concludes that no further work is needed at any site, the evidence and reasoning supporting this recommendation will be presented.

b. References: This section will provide bibliographic references (in *American Antiquity* format) for every publication cited in the report. References not cited in the report may be listed in a separate "Additional References" section.

c. Appendix: This section will include the Scope of Work, resumes of project personnel, copies of all correspondence relating to the study, and any other pertinent information referenced in the text. It will also include State site forms for all sites identified during the survey, including find spots and previously recorded sites.

d. Figures: The location of all sites and other features discussed in the text will be shown on a legibly photocopied USGS map bound into the report. In addition, the locations of all subsurface tests will be indicated on maps of appropriate scale and detail and keyed to the subsurface testing forms included with the field notes. Other recommended figures are regional and project maps, photographs of the project area, and line drawings or photographs of diagnostic artifacts, structures, and unit or feature profiles.

e. Tables: The report should include tables of cultural materials by site and provenience (for example, excavation unit and level). Information that may require more detailed tabulation includes lithic tool types and raw materials, ceramic attributes, and floral and faunal remains.

5.12 A cover letter submitted with the final contract report will include the project budget.

5.13 The Contractor will submit to the Contracting Officer's representative the negatives for all photographs that appear in the final report.

5.14 The popular report will be a brief summary of the study written for the general public. It will be submitted with the draft contract report, reviewed by the Contracting Officer's representative and, if necessary, revised before resubmission with the final contract report. The writing style should be clear, avoiding the use of technical terms whenever possible; if such terms are used, they should be clearly explained. This report should emphasize the general results of the study and its significance in terms of prehistoric or historic cultural development, rather than detailing methods or descriptive information. The use of illustrations is highly recommended. Discretion should be used in referring to site locations. At the Contractor's request, examples of well-written popular reports can be supplied by the Contracting Officer's representative.

5.15 REPORT FORMAT

5.16 There are no specific format requirements for the field report. A letter report is usually sufficient.

6.02 There are no format requirements for the field notes; however, they must be legible. If the original handwritten notes are illegible, they should be typed.

6.03 Formats for both the draft and final contract reports are as follows:

a. The Contractor will present information in whatever textual, tabular, or graphic forms are most effective for communicating it.

b. The draft and final reports will be divided into easily discernible chapters, with appropriate page separations and headings.

c. The report text will be typed, single-spaced (the draft report should be space-and-one-half or double-spaced), on good quality bond paper, 8.5 inches by 11.0 inches, with 1.5-inch binding and bottom margins and 1-inch top and outer margins, and may be printed on both sides of the paper. All pages will be numbered consecutively, including plates, figures, tables, and appendixes.

d. All illustrations must be clear, legible, self-explanatory, and of sufficiently high quality to be reproduced easily by standard xerographic equipment, and will have margins as defined above. All maps must be labeled with a caption/description, a north arrow, a scale bar, township and range, map size and dates, and map source (e.g., the USGS quad name or published source). All photographs or drawings should be clear, distinct prints or copies with captions and a bar scale.

6.04 The popular report should follow the basic format requirements specified in Sections 6.03c and d.

7.00 MATERIALS PROVIDED

7.01 The Contracting Officer's representative will furnish the Contractor with access to any publications, records, maps, or photographs that are on file at the St. Paul District headquarters.

8.00 SUBMITTALS

8.01 The field work completion date for this project will be 1 August 1986. The Contractor will contact the Contracting Officer's representative at least 7 days before the field work begins to discuss the work schedule and plans.

8.02 The Contractor will submit reports according to the following schedules:

a. Field report: A brief letter report summarizing the field work and its results will be submitted to the Corps of Engineers within 10 calendar days of completion of the field work.

b. Draft contract report: Seven copies of the draft contract report will be submitted no later than 60 calendar days after completion of the field work. The draft contract report will be reviewed by the Corps of Engineers, the State Historic Preservation Officer, the State Archeologist, and the

National Park Service. The draft contract report will be submitted according to the report and contract specifications outlined in this scope of work.

c. Project field notes: One legible copy of all the project field notes will be submitted with the draft contract report.

d. Final contract report: The original and 15 copies of the final report will be submitted 60 days after the Contractor receives the Corps of Engineers comments on the draft report. The final report will incorporate all the comments made on the draft report.

9.00 CONDITIONS

9.01 Failure of the Contractor to fulfill the requirements of this Scope of Work will result in rejection of the Contractor's report and/or termination of the contract.

9.02 Neither the Contractor nor his representative shall release any sketch, photograph, report, or other materials of any nature obtained or prepared under the contract without specific written approval of the Contracting Officer's representative prior to the acceptance of the final report by the Government. Dissemination of survey results through papers at professional meetings and publication in professional journals is encourage. However, professional discretion should be used in releasing information on site locations where publication could result in damage to cultural resources.

9.03 All materials, documents, collections, notes, forms, maps, etc., that have been produced or acquired in any manner for use in the completion of this contract shall be made available to the Contracting Officer's representative upon request.

9.04 Principal investigators will be responsible for the validity of material presented in their reports. In the event of controversy or court challenge, the principal investigator(s) will be placed under separate contract to testify on behalf of the Government in support of the findings presented in their reports.

9.05 The Contractor will be responsible for adhering to all State laws and procedures regarding the treatment and disposition of human skeletal remains. Any human remains recovered will be treated with respect and will not be placed on public display.

* RECORD OF TELEPHONE CONVERSATION *

PERSON CALLED: Robert Fay, Old Northwest Research
PERSON CALLING: David Berwick, NCSPD-ER

DATE: 25 August 1986
TIME: 0950 hrs

SUBJECT: Request for Bid Modification - Boscobel, Wisconsin Cultural Resources Survey

1. I called Mr. Robert Fay of Old Northwest Research, Inc. to inform him of two deletions that were being made in the scope of work for the cultural resources survey at Boscobel, Wisconsin. I asked Mr. Fay to revise his bid on the basis of deleting the field report and the popular report called for in the scope of work that was provided to him.

David Berwick
Senior Archeologist
Environmental Resources Branch
Planning Division

APPENDIX C
RESUME OF PRINCIPAL INVESTIGATOR

Robert Patrick Fay
Old Northwest Research

2310 Rowley Avenue
Madison, Wisconsin 53705

Education:

1980 M. A. Anthropology, University of Kentucky, Lexington
1977 State of Wisconsin, Department of Public Instruction,
Teaching Certification, Secondary Schools, Anthropology and
Broad Field Social Studies
1974 B. A. Anthropology, University of Wisconsin, Madison

Professional Experience:

1983-1987 Archeological Consultant, Old Northwest Research,
Madison, Wisconsin
1982-1983 Planner, Historic Preservation Division, State
Historical Society of Wisconsin, Madison
1980-1981 Staff Archeologist, Wisconsin Department of
Natural Resources, Bureau of Parks and Recreation,
Madison
1978-1980 Archeological Consultant, Lexington, Kentucky
1974-1978 Archeologist, State Historical Society of
Wisconsin, Madison

Awards and Honors:

Rotary Club Academic Scholarship, 1970
St. John's University Academic Scholarship, Collegeville,
Minnesota, 1970-1971
University of Kentucky Graduate School Travel Grant, 1979
Kentucky Heritage Council State Preservation Grant, 1985-1986

Major Publications:

1977 The Codification of Wisconsin's Archaeological Sites: An
Update Report. The Wisconsin Archeologist 58 (1):62-70.
1983 Annotated Bibliography for the Identification of Nineteenth
Century Artifacts (with John T. Penman). The Wisconsin
Archeologist 64 (3-4):288-302.
1984 Archaeology, History and Preservation: Hardscrabble - A
Case Study. Wisconsin Academy Review 30 (2):8-10.
1986 Archaeological Investigations at Liberty Hall, Frankfort,
Kentucky. Kentucky Heritage Council, Frankfort.

Professional Organizations: Society for Historical Archaeology,
Wisconsin Archaeological Society, Wisconsin Archaeological
Survey, Wisconsin Academy of Sciences, Arts and Letters, State
Historical Society of Wisconsin, Minnesota Historical Society,
The National Trust for Historic Preservation, The Madison Trust
for Historic Preservation

APPENDIX D

WISCONSIN ARCHEOLOGICAL CODIFICATION FILE
INVENTORY CARDS

TYPE OF SITE:

Mounds <input checked="" type="checkbox"/>	Village <input type="checkbox"/>	Campsite <input type="checkbox"/>	Garden Beds <input type="checkbox"/>	Gt 429
Petroglyphs <input type="checkbox"/>	Worksite <input type="checkbox"/>	Cemetery <input type="checkbox"/>	Cache <input type="checkbox"/>	CODE NUMBER
Quarry <input type="checkbox"/>	Cave or Rockshelter <input type="checkbox"/>		Other:	

Name of site	County	Township and range	Location in section	Present owner
E. Bluff St. Mounds	Grant	Boscobel T8N-R3W	along the 26 & 35 section line	
Reported by: R. Fay	Date 9/23/86			
Geographical Location	10-11 chains east between Sections 26 & 35 (now the 200 block of E. Bluff St.) between Valley & Park Streets, City of Boscobel			

DESCRIPTION OF SITE:

"Ancient Embankments" originally located about one block west of Sanders Creek. No surface indications of this group remain.

CULTURE:

REFERENCES:	Wisconsin Archeologist	Series	Vol.	No.	Page
U. S. General Land Office Surveyor's Field Notes, Township No. 8 North, Range 3 West of the 4th Principal Meridian.					
SPECIMENS FROM SITE	Fay, R. 1986	Old Northwest Research Report No. 19	- Boscobel Flood Control Survey		
IN POSSESSION OF:					

REMARKS:

WISCONSIN ARCHEOLOGICAL CODIFICATION FILE

TYPE OF SITE:

Mounds Village Campsite Garden Beds

Gt 430

Petroglyphs Worksite Cemetery Cache

CODE NUMBER

Quarry Cave or Rockshelter

Other:

Name of site	County	Township and range	Location in section	Present owner
Parker Hospital Mounds	Grant	Boscobel T8N-R3W	NW-NE-NE-NE and NE-NW-NE-NE of Section 34	Memorial Hospital & Nursing Home
Reported by: Date R. Fay 9/23/86				

Geographical Location on the grounds of the old Parker Hospital (Dwight Parker residence now razed) on Parker Street between Church and Mounds Streets,

DESCRIPTION OF SITE: Block 2, Parker's Addition, City of Boscobel

Two linear mounds originally located about 4 blocks west of Sanders Creek. The mounds were reported to Charles E. Brown in 1921 by Gov. John J. Blaine and Dr. F. S. Tuffley of Boscobel. The ends of both mounds had been taken off by street construction at this time. No surface indications of this group remain.

CULTURE:

REFERENCES:	Wisconsin Archeologist	Series	Vol.	No.	Page
CEB MSS, Box 25, SHSW					
Fay, R. 1986	Old Northwest Research Report No. 19 - Boscobel Flood Control Survey				

SPECIMENS FROM SITE

IN POSSESSION OF:

REMARKS:

WISCONSIN ARCHEOLOGICAL CODIFICATION FILE

TYPE OF SITE:

Mounds Village Campsite Garden Beds
 Petroglyphs Worksite Cemetery Cache
 Quarry Cave or Rockshelter Other:

Gt 431

CODE NUMBER

Name of site	County	Township and range	Location in section	Present owner
Ricks Estate Implement Cache	Grant	Boscobel T8N-R3W	SE 1/4 of Section 34	
Reported by: R. Fay	Date 9/23/86			
Geographical Location	on the former Delos E. Ricks Estate located south of the corporate limits of Boscobel between present Highways 61 & 133			

DESCRIPTION OF SITE:

Cache of a "peck of arrow-heads" found while digging post holes for a fence, in the town of Boscobel, on a farm once owned by the Delos E. Ricks Estate. The find was made some years ago. It was originally reported to Charles E. Brown by W. W. Gilman of Boscobel during the early 1900's. The Delos Ricks Estate is shown on Ogle's 1918 Standard

CULTURE: Atlas of Grant County, p. 29. The 147.25 acre "Valley View Farm" is bisected by Crooked Creek.

REFERENCES:

Wisconsin Archeologist	Series	Vol.	No.	Page
CEB MSS, Box 25, SHSW				
Fay, R. 1986	Old Northwest Research Report No. 19 - Boscobel Flood			
	Control Survey			

SPECIMENS FROM SITE

IN POSSESSION OF:

REMARKS:

(over)

WISCONSIN ARCHEOLOGICAL CODIFICATION FILE

Remarks: The exact location of this site is unknown. Present land use in the area includes commercial strip development along Highway 61 and agricultural fields between the highways (north, east & west) and Crooked Creek at the base of a wooded bluff (south).

END

4 - 87

DTIC